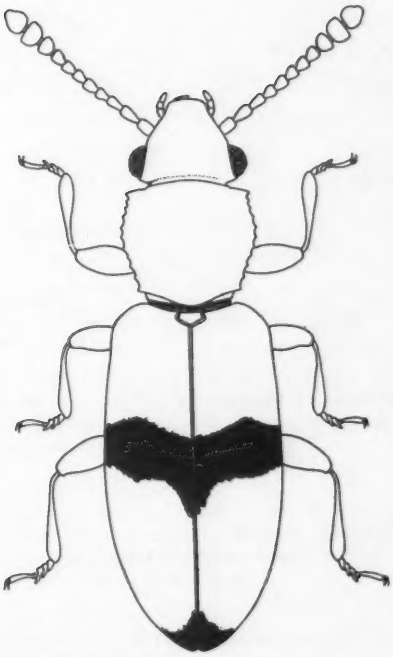
VOLUME 29 AUTHOR/CONTENTS INDEX
1993

Journal of STORED PRODUCTS RESEARCH

Senior Editor: P F CREDLAND
Regional Editors: C H BELL
B R CHAMP
E G JAY



(*Monanus concinnulus* Walker)

PERGAMON PRESS
Oxford · New York · Seoul · Tokyo

JOURNAL OF STORED PRODUCTS RESEARCH

Senior Editor: P. F. CREDLAND — *Department of Biology, Bourne Building, Royal Holloway, University of London, Egham, Surrey TW20 0EX, England* [*Fax*: (44) 784 470756]

Regional Editors

Australia and Asia: B. R. Champ
ACIAR, GPO Box 1571, Canberra, ACT 2601, Australia
[*Fax*: (61) 6257 3051]

Europe and Africa: C. H. Bell
Central Science Laboratory, Ministry of Agriculture, Fisheries and Food, London Road, Slough SL3 7HJ, England
[*Fax*: (44) 753 824058]

The Americas: E. G. Jay
Journal of Stored Products Research, P.O. Box 61266, Savannah, GA 31420, U.S.A.
[*Fax*: (1) 912 925 6424]

Advisory Board

J. E. Baker	*Savannah, U.S.A.*	A. Hocking	*North Ryde, Australia*
H. J. Banks	*Canberra, Australia*	H. Nakakita	*Tsukuba, Japan*
M. Bengston	*Indooroopilly, Australia*	C. Reichmuth	*Berlin, Germany*
J. Boczek	*Warsaw, Poland*	D. G. Rowlands	*Slough, England*
E. J. Bond	*Connaught, Canada*	M. R. Sartori	*São Paulo, Brazil*
W. E. Burkholder	*Madison, U.S.A.*	R. N. Sinha	*Winnipeg, Canada*
M. Calderon	*Tel Aviv, Israel*	A. Sokoloff	*San Bernardino, U.S.A.*
F. Fleurat-Lessard	*Villenave d'Ornon, France*	R. G. Winks	*Canberra, Australia*
D. P. Giga	*Harare, Zimbabwe*	G. A. Zakladnoy	*Moscow, Russia*
C. P. Haines	*Kent, England*		

Editorial Assistant: Dr P. M. Cogan

Publishing Office
Pergamon Press Ltd, Pergamon House, Bampfylde Street, Exeter EX1 2AH, England
[*Tel.* Exeter (0392) 51558; *Fax* 425370]

Subscription and Advertising Offices
North America: Pergamon Press Inc., 660 White Plains Road, Tarrytown, NY 10591-5153, U.S.A.
Rest of the World: Pergamon Press Ltd, Headington Hill Hall, Oxford OX3 0BW, England
[*Tel.* Oxford (0865) 794141]

Subscription Rates
Annual institutional subscription rate (1994): North, Central and South America, U.S. $455.00; Rest of World, £296.00. Sterling prices exclude VAT. Non-VAT registered customers in the European Community will be charged the appropriate VAT in addition to the price listed. Prices include postage and insurance and are subject to change without notice.

Back Issues
Back issues of all previously published volumes, in both hard copy and on microform, are available direct from Pergamon Press offices.

Published Quarterly in March, June, September and December

Copyright © 1993 Pergamon Press Ltd

Second class postage paid at RAHWAY NJ. Postmaster send address corrections to *Journal of Stored Products Research*, c/o Pergamon Press Inc., 660 White Plains Road, Tarrytown, NY 10591-5153, U.S.A.

CONTENTS

NUMBER 1

P. M. Barrer, N. T. Starick, R. Morton and E. Jane Wright	1	Factors influencing initiation of flight by *Rhyzopertha dominica* (F.) (Coleoptera: Bostrichidae)
B. Delobel and A. M. Grenier	7	Effect of non-cereal food on cereal weevils and tamarind pod weevil (Coleoptera: Curculionidae)
B. Clarke	15	A powdered chemical mixer for bagged grain
D. P. Giga, I. Kadzere and J. Canhao	19	Bionomics of four strains of *Callosobruchus rhodesianus* (Pic) (Coleoptera: Bruchidae) infesting different food legumes
Zaky M. F. Rostom	27	Survey of some granivorous and non-granivorous insects and mites of stores in Saudi Arabia
Syed Khalid Ahmad	33	Mycoflora changes and aflatoxin production in stored blackgram seeds
J. Bielewicz, S. Cenkowski and W. E. Muir	37	Pretreatment effects on equilibrium moisture contents of canola
James J. Madenjian, Joseph D. Eifert and John F. Lawrence	45	Ciidae: newly recognized beetle pests of commercial dried mushrooms
Dogo Seck	49	Resistance to *Callosobruchus maculatus* F. (Col., Bruchidae) in some cowpea varieties from Senegal
W. H. O. Ernst	53	Food consumption, life history and determinants of host range in the bruchid beetle *Specularius impressithorax* (Coleoptera: Bruchidae)
D. P. Giga and Sr. J. Canhao	63	Competition between *Prostephanus truncatus* (Horn) and *Sitophilus zeamais* (Motsch.) in maize at two temperatures
Patrick V. Vail, Darlene F. Hoffmann and J. Steven Tebbets	71	Autodissemination of *Plodia interpunctella* (Hübner) (Lepidoptera: Pyralidae) granulosis virus by healthy adults
A. K. Choudhary and K. K. Sinha	75	Competition between a toxigenic *Aspergillus flavus* strain and other fungi on stored maize kernels
D. P. Locatelli and E. Daolio	81	Effectiveness of carbon dioxide under reduced pressure against some insects infesting packaged rice
S. Kumar, R. K. Sinha and T. Prasad	89	Propionic acid as a preservative of maize grains in traditional storage in India
Ifedioramma E. Nwana	95	A survey of storage Coleoptera which attack dried cocoyam chips in Nigeria

NUMBER 2

P. F. Credland	iii	Editor's introductory note
D. G. H. Halstead	99	Keys for the identification of beetles associated with stored products—II. Laemophloeidae, Passandridae and Silvanidae

NUMBER 3

Jeremy R. Ashworth	199	The biology of *Ephestia elutella*
George N. Mbata	207	Evaluation of susceptibility of varieties of cowpea to *Callosobruchus maculatus* (F.) and *Callosobruchus subinnotatus* (Pic.) (Coleoptera: Bruchidae)
G. J. Daglish, E. A. Hall, M. J. Zorzetto, T. M. Lambkin and J. M. Erbacher	215	Evaluation of protectants for control of *Acanthoscelides obtectus* (Say) (Coleoptera: Bruchidae) in navybeans (*Phaseolus vulgaris* (L.))
A. K. Singh and G. R. Thorpe	221	A solution procedure for three-dimensional free convective flow in peaked bulks of grain
Mahmoud Fadl Ali	237	Biological studies on immature and adult stages of *Attagenus fasciatus* (Thunberg) (Coleoptera: Dermestidae)
A. Heddi and P. Nardon	243	Mitochondrial DNA expression in symbiotic and aposymbiotic strains of *Sitophilus oryzae*
Frank H. Arthur	253	Evaluation of prallethrin aerosol to control stored product insect pests
Catherine Regnault-Roger and Abdelaziz Hamraoui	259	Efficiency of plants from the South of France used as traditional protectants of *Phaseolus vulgaris* L. against its bruchid *Acanthoscelides obtectus* (Say)
P. S. Sujatha and Aparna Dutta-Gupta	265	Effect of hormones on total haemocyte count during the post-embryonic development of *Corcyra cephalonica* (Lepidoptera)
Yousif N. Aldryhim	271	Combination of classes of wheat and environmental factors affecting the efficacy of amorphous silica dust, dryacide, against *Rhyzopertha dominica* (F.)
Agnes W. Brokerhof, Richard Morton and H. Jonathan Banks	277	Time–mortality relationships for different species and developmental stages of clothes moths (Lepidoptera: Tineidae) exposed to cold

NUMBER 4

P. D. Cox, J. E. Atkinson, K. L. Bannon and J. Hatfield	283	Studies of refuge-seeking behaviour and locomotory activity in *Cryptolestes ferrugineus* (Stephens) (Coleoptera: Cucujidae) using time-lapse video recordings
Jeremy R. Ashworth	291	The biology of *Lasioderma serricorne*
Agnes W. Brokerhof and H. Jonathan Banks	305	Cold tolerance of *Tineola bisselliella* (Lepidoptera: Tineidae) eggs at slow cooling rate
V. Lienard, D. Seck, G. Lognay, C. Gaspar and M. Severin	311	Biological activity of *Cassia occidentalis* L. against *Callosobruchus maculatus* (F.) (Coleoptera: Bruchidae)
T. K. Dongre, S. E. Pawar and M. R. Harwalkar	319	Resistance to *Callosobruchus maculatus* (F.) (Coleoptera: Bruchidae) in pigeonpea (*Cajanus cajan* (L.) Millsp.) and other *Cajanus* species
Nurit Kamin-Belsky and David Wool	323	Ecological aspects of digestive enzyme covariation in almond moth larvae, *Ephestia cautella* (Walker) (Lepidoptera, Phyticidae)

D. K. Kossou, J. H. Mareck and N. A. Bosque-Pérez 333 Comparison of improved and local maize varieties in the Republic of Benin with emphasis on susceptibility to *Sitophilus zeamais* Motschulsky

G. J. Daglish, J. M. Erbacher and M. Eelkema 345 Efficacy of protectants against *Callosobruchus phaseoli* (Gyll.) and *C. maculatus* (F.) (Coleoptera: Bruchidae) in mungbeans

K. S. Bilgrami and A. K. Choudhary 351 Impact of habitats on toxigenic potential of *Aspergillus flavus*

H. L. Beasley, J. H. Skerritt, A. S. Hill and J. M. Desmarchelier 357 Rapid field tests for the organophosphorus pesticides, fenitrothion and pirimiphos-methyl—reliable estimates of residues in stored grain

Corrigendum I

AUTHOR INDEX

Ahmad S. K., 33
Aldryhim Y. N., 271
Ali M. F., 237
Arthur F. H., 253
Ashworth J. R., 199, 291
Atkinson J. E., 283

Banks H. J., 277, 305
Bannon K. L., 283
Barrer P. M., 1
Beasley H. L., 357
Bielewicz J., 37
Bilgrami K. S., 351
Bosque-Pérez N. A., 333
Brokerhof A. W., 277, 305

Canhao J., 19
Canhao Sr. J., 63
Cenkowski S., 37
Choudhary A. K., 75, 351
Clarke B., 15
Cox P. D., 283

Daglish G. J., 215, 345
Daolio E., 81
Delobel B., 7
Desmarchelier J. M., 357
Dongre T. K., 319
Dutta-Gupta A., 265

Eelkema M., 345
Eifert J. D., 45
Erbacher J. M., 215, 345
Ernst W. H. O., 53

Gaspar C., 311
Giga D. P., 19, 63
Grenier A. M., 7

Hall E. A., 215
Halstead D. G. H., 99
Hamraoui A., 259
Harwalkar M. R., 319
Hatfield J., 283
Heddi A., 243
Hill A. S., 357
Hoffmann D. F., 71

Kadzere I., 19
Kamin-Belsky N., 323
Kossou D. K., 333
Kumar S., 89

Lambkin T. M., 215
Lawrence J. F., 45
Lienard V., 311
Locatelli D. P., 81
Lognay G., 311

Madenjian J. J., 45
Mareck J. H., 333
Mbata G. N., 207
Morton R., 1, 277
Muir W. E., 37

Nardon P., 243
Nwana I. E., 95

Pawar S. E., 319
Prasad T., 89

Regnault-Roger C., 259
Rostom Z. M. F., 27

Seck D., 49, 311
Severin M., 311
Singh A. K., 221
Sinha K. K., 75
Sinha R. K., 89
Skerritt J. H., 357
Starick N. T., 1
Sujatha P. S., 265

Tebbets J. S., 71
Thorpe G. R., 221

Vail P. V., 71

Wool D., 323
Wright E. J., 1

Zorzetto M. J., 215

Typeset in Great Britain by BPCC Techset Ltd, Exeter. Printed by BPCC Wheatons Ltd, Exeter